

We claim:

1. A method of monitoring events in a database comprising the steps of:

storing in the database at least one database rule;

mapping temporal constraints of an event of the database rule to corresponding temporal events;

changing the temporal constraints associated with the temporal events based upon temporal constraints for related events of the database rule; and

selectively deploying and selectively removing the temporal events from the database based upon the changed temporal constraints.

2. The method as claimed in claim 1, further comprising the step of removing from the database temporal events that cannot evaluate as true.

3. The method as claimed in claim 1, further comprising the step of limiting the lifespan of an event to the overlapping period of the lifespan of a parent event.

4. The method as claimed in claim 1, further comprising the step of changing the lifespan of an event to omit periods in which the event cannot evaluate as true.

5. The method as claimed in claim 1, further comprising the step of assigning a lifespan of an event having an undefined lifespan as the lifespan of a parent event.

6. The method as claimed in claim 1, further comprising the step of propagating the lifespan or context of the parent node to all children nodes of the parent node.

7. The method as claimed in claim 1, wherein a lifespan of an event is expressed as a predetermined duration of time.

8. The method as claimed in claim 4, wherein the lifespan is dependent upon the associated event.

9. The method as claimed in claim 4, wherein the lifespan ends at a predetermined time, or
5 recurs at a predetermined period of time.

10. The method as claimed in claim 1, further comprising the step of combining events using a sequence operator to form a composite event having a time span.

10 11. The method as claimed in claim 7, further comprising the step of associating a lifespan with the sequence operator.

12. The method as claimed in claim 1, further comprising the step of storing a database rule as an event-condition-action (ECA) rule.

15 13. A database recorded on a computer storage medium comprising:

software code means for mapping temporal constraints of an event of a database rule to corresponding temporal events;

20 software code means for changing the temporal constraints associated with the temporal events based upon temporal constraints for related events of the database rule; and

25 software code means for selectively deploying and selectively removing the temporal events from the database based upon the changed temporal constraints.

14. A computer system that stores a database comprising:

30 means for mapping temporal constraints of an event of a database rule to corresponding temporal events;

means for changing the temporal constraints associated with the temporal events based upon temporal constraints for related events of the database rule; and

means for selectively deploying and selectively removing the temporal events from the database based upon the changed temporal constraints.

15. A computer program product comprising:

software code means for mapping temporal constraints of an event of a database rule to corresponding temporal events;

software code means for changing the temporal constraints associated with the temporal events based upon temporal constraints for related events of the database rule; and

software code means for selectively deploying and selectively removing the temporal events from the database based upon the changed temporal constraints.